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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/739,476	12/18/2000	Kavitha Vallari Devara	US 000397	4016

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS
P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

EXAMINER
MANNING, JOHN

ART UNIT	PAPER NUMBER
2623	

DATE MAILED: 07/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/739,476	DEVARA, KAVITHA VALLARI
	Examiner	Art Unit	
	John Manning	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1,2,4-6,8 and 9* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) *1-2, 4-6 and 8-9* is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☐ All   b) ☐ Some *   c) ☐ None of:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____.
      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments with respect to the amended claims have been considered

but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 1-2, 4-6 and 8-9 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Wei, Gang et al ("TV program classification based on face and text

processing"), previously cited by applicant in view of Liou et al. (US Pat No 6,580,437).

Regarding claim 1, the claimed "method for classification of a program" is met as

follows:

- The claimed step of "receiving an audio/video signal corresponding to the

  program" is met by the statement that "consumers today are receiving

  increased numbers of channels" [page 1345, paragraph 2].

- The claimed step of "determining transcript information associated with the

  program using the audio/video signal" is met by the text tracking and

extraction being performed on frames in order to extract and receive text

from the video signal [page 1346, section 2.2].

- The claimed step of "identifying at least one cue in the transcript

   information and an associated time of occurrence, each of the cues being

   associated with a type of program" is met by the text that is a helpful cue

   in recognizing the type of a TV program [page 1345, paragraph 4]. Also,

   the trajectory being used in the text tracking method (section 2.2) notes a

   time of occurrence. Wei, Gang utilizes a "text tracking" to track text and to

   consider the text if it falls into an appropriate trajectory. In section 3.1, the

   reference states, "the number and average duration of the 'survived'

   trajectories constitute additional dimensions in the feature space." Wei,

   Gang teaches that a number (per unit time) of text occurrences are used

   to create a feature space (in other words, they are used to classify

   programs).

- The claimed step of "correlating the at least one cue identified in the

   transcript information to the type of program" is met by the inherent

   correlation between the text cues and the type of a TV programs

   associated with the text cues. The reference states "text is a helpful cue

   in **recognizing** certain types of TV programs". This recognition of the TV

   program type inherently teaches a correlation between the text cue and

   the TV program type [page 1345, paragraph 4].

- The claimed step of "classifying the program based on the proximity of occurrence of the two selected cues" is met by the classification of a TV program into a category based on the extracted text cue [page 1345, paragraph 4], and their proximity to one another, as discussed above.

Wei, Gang is silent with respect to the claimed step of "comparing the time of occurrence of two cues selected from the at least one identified cue and determining a proximity of occurrence of the two selected cues, wherein if the proximity of occurrence is greater than a predetermined amount, the two selected cues are ignored in connection with determining the program classification and wherein if the proximity of occurrence is not greater than the predetermined amount, the two selected cues are utilized in connection with determining the classification". Liou et al teaches using determining a proximity of occurrence of the two selected cues (col. 7 lines 10-15). Furthermore, Liou shows that if the occurrence is greater than a predetermined amount, the two selected cues are ignored and if the proximity of occurrence is not greater than the predetermined amount, the two cues are utilized the classification (col. 7 lines I5-60, designating new cues and segments when a second cue, or "proper noun" is not found). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Wei, Gang with the "comparing the time of occurrence of two cues selected from the at least one identified cue and determining a proximity of occurrence of the two selected cues, wherein if the proximity of occurrence is greater than a predetermined amount, the two selected cues are ignored in connection with determining the program classification and wherein if the proximity of occurrence is not

greater than the predetermined amount, the two selected cues are utilized in connection with determining the classification" so that the system would more efficiently identify and classify program segments and cues.

Regarding claim 2, the claimed step of "receiving an audio/data/video signal which includes the transcript information" is met by page 1345, section 1, wherein the reference discloses the step of receiving an audio/video feed and extracting the transcript from the received audio/video feed.

Regarding claim 4, the claimed "classification of the program is one of a news program, talk show, sports program, panel discussions, interviews, and situational comedy" is met by the teaching of four categories, namely news, commercial, sitcom, and soap (page 1345, paragraph 4). He also suggests that the system can be extended to recognize more categories by adding new classification rules.

Regarding claim 5, Liou discloses the transcript information is closed caption text (Col 5, Lines 51-65).

Regarding claim 6, the claimed "apparatus for classification of a program" is met as follows:

- The claimed "receiver to receive an audio/data/video signal corresponding to the program" is met by the statement that "consumers today are receiving increased numbers of channels" [page 1345, paragraph 2].

- The claimed "transcript information extractor for extracting transcript information associated with the program from the audio/data/video input signal" is met by the text tracking and extraction being performed on

frames in order to extract and receive text from the video signal [page 1346, section 2.2].

- The claimed "cue extractor for identifying at least one cue of a plurality of cues in the transcript information and an associated time of occurrence, each of the plurality of cues having associated therewith a type of program" is met by the text that is a helpful cue in recognizing the type of a TV program [page 1345, paragraph 4]. Also, the trajectory being used in the text tracking method (section 2.2) notes a time of occurrence. Wei, Gang utilizes a "text tracking" to track text and to consider the text if it falls into an appropriate trajectory. In section 3.1, the reference states, "the number and average duration of the 'survived' trajectories constitute additional dimensions in the feature space." Wei, Gang teaches that a number (per unit time) of text occurrences are used to create a feature space (in other words, they are used to classify programs).

- The claimed "knowledge database for correlating the at least one cue of the plurality of cues identified in the transcript information to the type of program" is met by the inherent correlation between the text cues and the type of a TV programs associated with the text cues. The reference states "text is a helpful cue in **recognizing** certain types of TV programs". This recognition of the TV program type inherently teaches a correlation between the text cue and the TV program type [page 1345, paragraph 4].

- The claimed "classifier for classifying the program based on the proximity of occurrence" is met by the classification of a TV program into a category based on the extracted text cue [page 1345, paragraph 4], and their proximity to one another, as discussed above

The claimed "temporal database for comparing the time of occurrence of two selected cues of the at least one cue to determine a proximity of occurrence of the two selected cues, wherein if the proximity of occurrence is greater than a predetermined amount, the two selected cues are ignored in connection with determining the program classification and wherein if the proximity of occurrence is not greater than the predetermined amount, the two selected cues are utilized in connection with determining the classification". Liou et al teaches using determining proximity of occurrence of the two selected cues (col. 7 lines 10-15). Furthermore, Liou shows that if the occurrence is greater than a predetermined amount, the two selected cues are ignored and if the proximity of occurrence is not greater than the predetermined amount, the two cues are utilized the classification (col. 7 lines I5-60, designating new cues and segments when a second cue, or "proper noun" is not found). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Wei, Gang with the "temporal database comparing the time of occurrence of two cues selected from the at least one identified cue and determining a proximity of occurrence of the two selected cues, wherein if the proximity of occurrence is greater than a predetermined amount, the two selected cues are ignored in connection with determining the program classification and wherein if the proximity of occurrence is not

greater than the predetermined amount, the two selected cues are utilized in connection with determining the classification" so that the system would more efficiently identify and classify program segments and cues.

Regarding claim 8, the claimed "classification of the program is one of a news program, talk show, sports program, panel discussions, interviews, and situational comedy" is met by the teaching of four categories, namely news, commercial, sitcom, and soap (page 1345, paragraph 4). He also suggests that the system can be extended to recognize more categories by adding new classification rules.

Regarding claim 9, Liou discloses the transcript information is closed caption text (Col 5, Lines 51-65).

Conclusion

4.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Manning whose telephone number is 571-272-7352. The examiner can normally be reached on M-F: 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on 571-272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

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Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JM
June 21, 2006

JOHN MILLER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600